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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/080,994

02/20/2002

Akira Tsukihashi

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26021

7590

08/11/2006

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EXAMINER

BATTAGLIA, MICHAEL V

ART UNIT

PAPER NUMBER

2627

DATE MAILED: 08/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/080,994	Applicant(s) TSUKIHASHI ET AL.	
	Examiner Michael V. Battaglia	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 24-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 24-28 is/are rejected.
- 7) ☒ Claim(s) 29 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 5, 2006 has been entered.

***Claim Objections***

2. Claims 27-29 are objected to because of the following informality.
- a.) On line 6 of claim 27, replacing “configuring the recording/reproducing apparatus to compare” with –comparing-- is suggested to avoid improper antecedent basis issues for the “the recording/reproducing apparatus” limitation.
  - b.) On line 11 of claim 27, replacing “the recording properties” with –recording properties-- is suggested to avoid improper antecedent basis issues.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 24-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In regard to claim 24, where the preamble ends and the body begins is unclear. In addition, no structure elements of the claimed apparatus are found in the claim. Inserting “the apparatus comprising:” followed by positively claimed structural elements of the apparatus is

suggested. It is noted that the structural elements of an apparatus can be defined by the function of the elements. If Applicant wishes to claim the structural elements in such a way, claiming the structural elements as “an interruption means for interrupting a signal recorded on . . . ; a reproducing means for reproducing . . . ; a comparing means for comparing . . . ; a resuming means for resuming . . .” and so on keeping in mind that the claimed structural elements must be supported by the specification. No statement will be made as to the allowability of the subject matter of claims 24-26 due to the lack of clarity in the claims. However, Applicant’s attention is drawn to the rejection of claims 24, which has method steps corresponding to the method for which the apparatus of claim 24 is used.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being obvious over Salmonsens et al (hereafter Salmonsens) (US 6,636,468) in view of Yen et al (hereafter Yen) (US 6,643,233), or in the alternative, over Salmonsens in view of Yen and further in view of Oka (US 5,487,047).

In regard to claim 27, Salmonsens discloses a method for recording/reproducing comprising: interrupting a recording operation for recording onto a disk (Fig. 2, element 210) when a recording characteristic is to be changed (Fig. 4, steps 430 and 440; Col. 4, lines 15-18; and Col. 5, line 27-Col. 6, line 36); reproducing a signal recorded on the disk before interrupting a recording operation (Fig. 4, step 440 and Col. 5, lines 5-10 and including the “information”

identified by read logic 230 of Col. 4, lines 32-33); finding the point to resume the recording operation (Fig. 4, step 450), and resuming the recording operation (Fig. 4, step 425 after step 450 is carried out); wherein recording properties are detected based on a signal reproduced before the recording operation is resumed to set the recording characteristic for resuming the recording operation, depending on whether the detected recording properties are determined to be satisfactory or unsatisfactory (Fig. 4, steps 445 and 455 and Col. 6, line 66-Col. 7, line 30). Salmonsén does not disclose that the recording characteristic to be changed is recording linear speed and instead discloses that the recording characteristic to be changed is recording power (“laser power” of Fig. 4, step 455).

Yen discloses reproducing a signal recorded on a disk (Fig. 4, steps S41 and S42), wherein recording properties are detected based on a signal reproduced to set the recording linear speed and recording power for a recording operation, depending on whether the detected recording properties are determined to be satisfactory or unsatisfactory (Fig. 4, steps S43 and S44) in order to set both recording speed and recording power to respective levels better suited to the detected recording properties (Col. 2, lines 2-16).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the recording characteristic of Salmonsén to be recording linear speed and recording power as suggested by Yen, the motivation being for the recording linear speed of Salmonsén in addition to the recording power of Salmonsén to be set to levels better suited to the detected recording properties of Salmonsén.

In addition, Salmonsén does not specifically disclose that the finding the point to resume the recording operation includes comparing the reproduced signal and a signal stored in a buffer

RAM for temporarily storing a recording signal; and that the resuming the recording operation occurs when the compared signals are determined to be identical to each other. However, such features are inherent to the method of Salmonsens because the “starting location” of Col. 4, line 27 is inherently stored in a buffer RAM for temporarily storing a recording signal (note that the claimed “recording signal” reads on the “starting location” of Salmonsens because the “starting location” is a signal used in the recording of Salmonsens (Col. 4, lines 27-40)). Thus, the comparing the reproduced signal (“information” identified by read logic 230 of Col. 4, lines 32-33) and a signal (“starting location” of Col. 4, line 27) stored in a buffer RAM for temporarily storing a recording signal; and resuming the recording operation when the compared signals are determined to be identical to each other (Col. 4, lines 27-35) is inherent to the method of Salmonsens.

If the claimed “comparing the reproduced signal and a signal stored in a buffer RAM for temporarily storing a recording signal; and resuming the recording operation occurs when the compared signals are determined to be identical to each other” is not inherent to the method of Salmonsens, then, in the alternative, including the “comparing” and “resuming” steps as claimed in the method of Salmonsens in view of Yen are obvious in further view of Oka. It is noted that Salmonsens discloses that the point to restart writing may be found in some other alternate way (Col. 4, lines 46-53).

Oka discloses finding a point to restart writing (“positions . . . when the recording operations were interrupted” of Col. 6, lines 51-52) by comparing a reproduced signal (“address information” of Col. 3, lines 47-50) and a signal (“address information” of Col. 6, lines 25-27) stored in a buffer RAM (“internal memory of the system controller” of Col. 6, lines 25-27) for

temporarily storing a recording signal; and resuming the recording operation when the compared signals are determined to be identical to each other (Col. 6, lines 47-56). It is noted that the claimed "buffer RAM for temporarily storing a recording signal" reads on the "internal memory of the system controller" of Col. 6, lines 25-27 because the "address information" of Col. 6, lines 25-27 is a signal used in the recording of Oka.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the method of Salmonsens to find the point to restart writing by comparing the reproduced signal and a signal stored in a buffer RAM for temporarily storing a recording signal; and resuming the recording operation when the compared signals are determined to be identical to each other as suggested by Oka, the motivation being to find the point to restart writing in a reliable alternate way.

In regard to claim 28, Yen discloses that the including, when the recording properties of a signal reproduced before the recording operation is resumed are detected without changing the recording linear speed (see Fig. 4, steps S41 and S42 of Yen and note that the recording linear speed is not changed until step S44), terminating the recording operation by the recording/reproducing apparatus when it is, determined based on the detected recording properties that recording quality is insufficient to allow a signal to be reproduced (Fig. 4, step S45).

#### *Allowable Subject Matter*

5. Claim 29 would be allowable if rewritten to overcome the objections set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. None of the references of record alone or in combination suggest or fairly teach the method

including all of the limitations of claim 27 and further including **detecting a change in recording properties through comparison between recording property data detected based on a signal reproduced before the recording operation is resumed and detecting recording property data at a previous point of change of the recording linear speed**, to thereby determine whether or not the recording properties have become better.

#### *Response to Arguments*

6. Applicant's arguments filed June 5, 2006 have been fully considered but they are not persuasive because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

#### *Conclusion*

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Choi (US 6,404,714) discloses comparing a reproduced signal and a signal stored in a buffer RAM for temporarily storing a recording signal; and resuming the recording operation occurs when the compared signals are determined to be no longer identical to each other (Fig. 3 and Col. 4). Komaki (US 6,920,094) discloses interrupting a recording operation when a recording speed is to be changed (Abstract).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael V. Battaglia whose telephone number is (571) 272-7568. The examiner can normally be reached on M-F, 8:30-5:00.



Art Unit: 2627

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Michael Battaglia



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SUPERVISORY PATENT EXAMINER